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SEQUENCE LISTING

<110> Jackson, W.
Harris, A.

<120> NEISSERIA MENINGITIDIS POLYPEPTIDE, NUCLEIC ACID
SEQUENCE AND USES THEREOF

<130> 7969-083

<140> 09/388,089

<141> 1999-08-31

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 1347

<212> DNA

<213> Neisseria meningitidis

<220>

<221> modified_base

<222> (499)

<223> n=a, c, g, or t

<400> 1

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<210> 2

<211> 447

<212> PRT

<213> Neisseria spp.

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35 40 45

Tyr Glu Phe Phe Lys Arg Leu Val Pro Asn Met Pro Glu Ile Pro Gln
50 55 60

Glu Glu Ala Asp Asp Gly Gly Leu Asn Phe Gly Ser Gly Phe Ile Ile
65 70 75 80

Ser Lys Asp Gly Tyr Ile Leu Thr Asn Thr His Val Val Thr Gly Met
85 90 95

Gly Ser Ile Lys Val Leu Leu Asn Asp Lys Arg Glu Tyr Thr Ala Lys
100 105 110

Leu Ile Gly Ser Asp Val Gln Ser Asp Val Ala Leu Leu Lys Ile Asp
115 120 125

Ala Thr Glu Glu Leu Pro Val Val Lys Ile Gly Asn Pro Lys Asp Leu
130 135 140

Lys Pro Gly Glu Trp Val Ala Ala Ile Gly Ala Pro Phe Gly Phe Asp
145 150 155 160

Asn Ser Val Thr Ala Gly Val Ser Ala Lys Gly Arg Ser Leu Pro Asn
165 170 175

Glu Ser Tyr Thr Pro Phe Ile Gln Thr Asp Val Ala Ile Asn Pro Gly
180 185 190

Asn Ser Gly Gly Pro Leu Phe Asn Leu Lys Gly Gln Val Val Gly Ile
195 200 205

Asn Ser Gln Ile Tyr Ser Arg Ser Gly Gly Phe Met Gly Ile Ser Phe
210 215 220

Ala Ile Pro Ile Asp Val Ala Met Asn Val Ala Glu Gln Leu Lys Asn
225 230 235 240

Thr Gly Lys Val Gln Arg Gly Gln Leu Gly Val Ile Ile Gln Glu Val
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Ser Tyr Gly Leu Ala Gln Ser Phe Gly Leu Asp Lys Ala Gly Gly Ala
260 265 270

Leu Ile Ala Lys Ile Leu Pro Gly Ser Pro Ala Glu Arg Ala Gly Leu
275 280 285

Arg Ala Gly Asp Ile Val Leu Ser Leu Asp Gly Gly Glu Ile Arg Ser
 290 295 300
 Ser Gly Asp Leu Pro Val Met Val Gly Ala Ile Thr Pro Gly Lys Glu
 305 310 315 320
 Val Ser Leu Gly Val Trp Arg Lys Gly Glu Glu Ile Thr Ile Lys Val
 325 330 335
 Lys Leu Gly Asn Ala Ala Glu His Ile Gly Ala Ser Ser Lys Thr Asp
 340 345 350
 Glu Ala Pro Tyr Thr Glu Gln Gln Ser Gly Thr Phe Ser Val Glu Ser
 355 360 365
 Ala Gly Ile Thr Leu Gln Thr His Thr Asp Ser Ser Gly Gly His Leu
 370 375 380
 Val Val Val Arg Val Ser Asp Ala Ala Glu Arg Ala Gly Leu Arg Arg
 385 390 395 400
 Gly Asp Glu Ile Leu Ala Val Gly Gln Val Pro Val Asn Asp Glu Ala
 405 410 415
 Gly Phe Arg Lys Ala Met Asp Lys Ala Gly Lys Asn Val Pro Leu Leu
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 Ile Met Arg Arg Gly Asn Thr Leu Phe Ile Ala Leu Asn Leu Gln
 435 440 445

<210> 3
 <211> 49
 <212> DNA
 <213> Artificial Sequence

<220>
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 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
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 <212> PRT
 <213> Neisseria meningitidis

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<210> 6
<211> 5
<212> PRT
<213> Neisseria meningitidis

<400> 6
Ser Asp Val Ala Leu
1 5

<210> 7
<211> 7
<212> PRT
<213> Neisseria meningitidis

<400> 7
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1 5

<210> 8
<211> 30
<212> DNA
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Primer

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<210> 9
<211> 30
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer

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<210> 10
<211> 1395
<212> DNA
<213> Neisseria meningitidis

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atcgaacaca ccaaagacga cggcagtgct agtatgtgc tgcccgactt tgcccaactg 180
gttcaaagcg aaggcccggc agtcgtcaat attcaggcag cccccgcccc gcgcacccaa 240
aacggcagcg gcaatgccga aaccgattcc gaccgccttg ccgacagcga cccgttctac 300

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gaatttttca aacgcctcgt cccgaacatg ccggaatcc cccaagaaga agcagatgac 360
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acccacgtcg ttgccggtat gggcagtatc aaagtctcgc tcaacgacaa gcgcgaatat 480
accgccaac tcacggttc ggatgtccaa tccgatgtcg cccttctgaa aatcgacgca 540
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gccaaaggca gaagcctgcc caacgaaagc tacacaccct tcatccaaac cgacgttgcc 720
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<210> 11
 <211> 498
 <212> PRT
 <213> Neisseria meningitidis

<400> 11

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Lys Glu Ala Ser Phe Val Glu Arg Ile Lys His Thr Lys Asp Asp Gly
      35             40             45
Ser Val Ser Met Leu Leu Pro Asp Phe Val Gln Leu Val Gln Ser Glu
      50             55             60
Gly Pro Ala Val Val Asn Ile Gln Ala Ala Pro Ala Pro Arg Thr Gln
      65             70             75             80
Asn Gly Ser Ser Asn Ala Glu Thr Asp Ser Asp Pro Leu Ala Asp Ser
      85             90             95
Asp Pro Phe Tyr Glu Phe Phe Lys Arg Leu Val Pro Asn Met Pro Glu
      100            105            110
Ile Pro Gln Glu Glu Ala Asp Asp Gly Gly Leu Asn Phe Gly Ser Gly
      115            120            125
Phe Ile Ile Ser Lys Asp Gly Tyr Ile Leu Thr Asn Thr His Val Val
      130            135            140
Thr Gly Met Gly Ser Ile Lys Val Leu Leu Asn Asp Lys Arg Glu Tyr
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Thr Ala Lys Leu Ile Gly Ser Asp Val Gln Ser Asp Val Ala Leu Leu
      165            170            175

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 Lys Asp Leu Lys Pro Gly Glu Trp Val Ala Ala Ile Gly Ala Pro Phe
 195 200 205
 Gly Phe Asp Asn Ser Val Thr Ala Gly Val Ser Ala Lys Gly Arg Ser
 210 215 220
 Leu Pro Asn Glu Ser Tyr Thr Pro Phe Ile Gln Thr Asp Val Ala Ile
 225 230 235 240
 Asn Pro Gly Asn Ser Gly Gly Pro Leu Phe Asn Leu Lys Gly Gln Val
 245 250 255
 Val Gly Ile Asn Ser Gln Ile Tyr Ser Arg Ser Gly Gly Phe Met Gly
 260 265 270
 Ile Ser Phe Ala Ile Pro Ile Asp Val Ala Met Asn Val Ala Glu Gln
 275 280 285
 Leu Lys Asn Thr Gly Lys Val Gln Arg Gly Gln Leu Gly Val Ile Ile
 290 295 300
 Gln Glu Val Ser Tyr Gly Leu Ala Gln Ser Phe Gly Leu Asp Lys Ala
 305 310 315 320
 Gly Gly Ala Leu Ile Ala Lys Ile Leu Pro Gly Ser Pro Ala Glu Arg
 325 330 335
 Ala Gly Leu Arg Ala Gly Asp Ile Val Leu Ser Leu Asp Gly Gly Glu
 340 345 350
 Ile Arg Ser Ser Gly Asp Leu Pro Val Met Val Gly Ala Ile Thr Pro
 355 360 365
 Gly Lys Glu Val Ser Leu Gly Val Trp Arg Lys Gly Glu Glu Ile Thr
 370 375 380
 Ile Lys Val Lys Leu Gly Asn Ala Ala Glu His Ile Gly Ala Ser Ser
 385 390 395 400
 Lys Thr Asp Glu Ala Pro Tyr Thr Glu Gln Gln Ser Gly Thr Phe Ser
 405 410 415
 Val Glu Ser Ala Gly Ile Thr Leu Gln Thr His Thr Asp Ser Ser Gly
 420 425 430
 Gly His Leu Val Val Val Arg Val Ser Asp Ala Ala Glu Arg Ala Gly
 435 440 445
 Leu Arg Arg Gly Asp Glu Ile Leu Ala Val Gly Gln Val Pro Val Asn
 450 455 460
 Asp Glu Ala Gly Phe Arg Lys Ala Met Asp Lys Ala Gly Lys Asn Val
 465 470 475 480

Pro Leu Leu Ile Met Arg Arg Gly Asn Thr Leu Phe Ile Ala Leu Asn
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Leu Gln

<210> 12

<211> 475

<212> PRT

<213> Neisseria meningitidis

<400> 12

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35 40 45

Gln Ala Ala Pro Ala Pro Arg Thr Gln Asn Gly Ser Ser Asn Ala Glu
50 55 60

Thr Asp Ser Asp Pro Leu Ala Asp Ser Asp Pro Phe Tyr Glu Phe Phe
65 70 75 80

Lys Arg Leu Val Pro Asn Met Pro Glu Ile Pro Gln Glu Glu Ala Asp
85 90 95

Asp Gly Gly Leu Asn Phe Gly Ser Gly Phe Ile Ile Ser Lys Asp Gly
100 105 110

Tyr Ile Leu Thr Asn Thr His Val Val Thr Gly Met Gly Ser Ile Lys
115 120 125

Val Leu Leu Asn Asp Lys Arg Glu Tyr Thr Ala Lys Leu Ile Gly Ser
130 135 140

Asp Val Gln Ser Asp Val Ala Leu Leu Lys Ile Asp Ala Thr Glu Glu
145 150 155 160

Leu Pro Val Val Lys Ile Gly Asn Pro Lys Asp Leu Lys Pro Gly Glu
165 170 175

Trp Val Ala Ala Ile Gly Ala Pro Phe Gly Phe Asp Asn Ser Val Thr
180 185 190

Ala Gly Val Ser Ala Lys Gly Arg Ser Leu Pro Asn Glu Ser Tyr Thr
195 200 205

Pro Phe Ile Gln Thr Asp Val Ala Ile Asn Pro Gly Asn Ser Gly Gly
210 215 220

Pro Leu Phe Asn Leu Lys Gly Gln Val Val Gly Ile Asn Ser Gln Ile
225 230 235 240

Tyr Ser Arg Ser Gly Gly Phe Met Gly Ile Ser Phe Ala Ile Pro Ile
 245 250 255
 Asp Val Ala Met Asn Val Ala Glu Gln Leu Lys Asn Thr Gly Lys Val
 260 265 270
 Gln Arg Gly Gln Leu Gly Val Ile Ile Gln Glu Val Ser Tyr Gly Leu
 275 280 285
 Ala Gln Ser Phe Gly Leu Asp Lys Ala Gly Gly Ala Leu Ile Ala Lys
 290 295 300
 Ile Leu Pro Gly Ser Pro Ala Glu Arg Ala Gly Leu Arg Ala Gly Asp
 305 310 315 320
 Ile Val Leu Ser Leu Asp Gly Gly Glu Ile Arg Ser Ser Gly Asp Leu
 325 330 335
 Pro Val Met Val Gly Ala Ile Thr Pro Gly Lys Glu Val Ser Leu Gly
 340 345 350
 Val Trp Arg Lys Gly Glu Glu Ile Thr Ile Lys Val Lys Leu Gly Asn
 355 360 365
 Ala Ala Glu His Ile Gly Ala Ser Ser Lys Thr Asp Glu Ala Pro Tyr
 370 375 380
 Thr Glu Gln Gln Ser Gly Thr Phe Ser Val Glu Ser Ala Gly Ile Thr
 385 390 395 400
 Leu Gln Thr His Thr Asp Ser Ser Gly Gly His Leu Val Val Val Arg
 405 410 415
 Val Ser Asp Ala Ala Glu Arg Ala Gly Leu Arg Arg Gly Asp Glu Ile
 420 425 430
 Leu Ala Val Gly Gln Val Pro Val Asn Asp Glu Ala Gly Phe Arg Lys
 435 440 445
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<210> 13
 <211> 1326
 <212> DNA
 <213> Neisseria meningitidis

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<210> 14
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 14
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<210> 15
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 15
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<210> 16
 <211> 51
 <212> PRT
 <213> Neisseria meningitidis

<400> 16
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 35 40 45
 Ser Val Ser
 50

<210> 17
<211> 153
<212> DNA
<213> Neisseria meningitidis

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tgcgacaaaag ccggcagctt ttccggtgcg gacaaaaaag aagcatcctt tgtagaacgc 120
atcaaacaca ccaaagacga cggcagcgtc agt 153

<210> 18
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 18
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<210> 19
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 19
actgacgctg ccgtcgtctt tggt 24

<210> 20
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 20
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